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PATENT OFFICE



No. 15,868/28.

APPLICATION DATED

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<i>Applicant</i> .. .. .	THE AUSTRAL MANUFACTURING COMPANY PROPRIETARY LIMITED.
<i>Application and Provisional Specification</i> ..	Accepted, 12th October, 1928.
<i>Complete Specification</i> .. .. .	Accepted, 24th July, 1929.
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Class 45.2.

*Drawing attached.*

COMPLETE SPECIFICATION.

**"An improvement in or relating to hospital bedsteads and other means for intermittent manual transport."**

WE, THE AUSTRAL MANUFACTURING COMPANY PROPRIETARY LIMITED, Manufacturers, of Macaulay Road, North Melbourne, in the State of Victoria and Commonwealth of Australia, hereby declare this invention, and the manner in which it is to be performed, to be fully described and ascertained in and by the following statement—

This invention relates to means for intermittent manual transport which are designed for stability against movement when at rest—the normal condition—but which are adaptable for occasional free movement when desired, and this invention especially relates to hospital bedsteads.

This invention more especially relates to hospital bedsteads of the type in which one pair of uprights is supported by a pair of freely running castor-wheels, while the other pair of uprights is supported by a pair of rubber foot-sockets or other floor-gripping devices. Bedsteads of that type are designed to minimize the danger of the bedstead being accidentally displaced while the patient is being turned in bed or being otherwise treated. It will be obvious that any movement of the bedstead during such treatment might seriously jar the patient. The above-mentioned floor-gripping devices, which are

usually placed at the foot end of the bedstead, minimize the danger of such movement. When it is desired to move such a bedstead from one room to another or out on to a verandah, its floor-gripping end is raised off the ground and the bedstead is wheeled on the castor-wheels at the other end. This necessitates considerable physical effort on the part of the nurses or attendants, especially if the patient is in the bed as would usually be the case. Consequently, the foot end frames of hospital bedsteads have been provided in some cases with one or more additional freely running castor wheels which could be lowered into operative position so as to support the end frame with the floor-gripping devices raised out of contact with the floor. Means for that purpose have been disclosed in the specification of Commonwealth Patent No. 20,848/24, dated the 3rd December, 1924. Such means comprised a castor-wheel standard which was slidable within a vertical sleeve and provided with a limit stop curved to conform to the shape of the sleeve and pivoted externally to the sleeve. The present invention is designed to attain the same result by simpler and less expensive mechanism.

This invention comprises a sleeve provided with a single vertical slot through which a stop pivoted within the sleeve is adapted to be swung so that when the stop is swung outwardly the standard carrying the castor-wheel, or like anti-friction device, is allowed to rise within the sleeve thus allowing the floor-gripping means to come into contact with the floor. When the bedstead is raised the standard slides downwardly and the pivoted stop swings inwardly by gravity into position above the top of the standard so that the end of the bedstead is held in a raised position, the floor-gripping means being out of contact with the floor.

Preferably, the stop is pivotally mounted, within the sleeve, on a cross bolt which is passed through apertures in the sleeve. Further, according to the preferred form of the invention, the stop is provided with a finger grip by which it may be swung outwardly so as to allow the standard to rise, and this finger grip is preferably positioned so that it may be gripped by the fingers when the hand is holding the top bar of the end frame of the bedstead.

Normally, it is desirable to prevent rotation of the slidable standard, more particularly to ensure noiselessness. This could be effected, for example, by slotting the top of the standard where it engages the pivoted stop, but preferably the vertical slot in the sleeve is extended downwardly so as to accommodate slidably a pin offset from the standard.

The drawings illustrate the preferred specific construction of this invention. In these drawings:—

Figure 1 is an elevation of the end of the bedstead to which the invention is applied, the floor-gripping means being shown in contact with the floor.

Figure 2 is an end elevation corresponding to Figure 1 but showing the floor-gripping means raised by the lowering of the standard which carries the castor-wheel. In this view portion of the sleeve is cut away for the sake of clearness.

Figure 3 is a view of a detail showing means to prevent rotation of the slidable standard.

According to this preferred embodiment of the invention a sleeve 1 forming the centre upright of the end frame of the bedstead is provided with one vertical slot 2

which is positioned laterally near the top of the sleeve. A pivoted stop 3 is formed of a flat piece of metal which is pivoted near the top on a bolt 4 passing through opposite apertures (not shown) in the sleeve. The pivoted stop is provided with a lateral offset boss 6 which is bored vertically and screwed or shrunk on to an upwardly directed and outwardly curved tail rod 7 which acts as a finger grip. As only one slot is provided the opposite wall of the sleeve serves as an abutment to limit the inward swing of the stop in the correct position when the end frame is raised. A castor-wheel 8 is carried by a swivel connection on a standard 9 which slides within the sleeve 1 and may be prevented from rising upwardly in the sleeve by means of the pivoted stop. When the standard is thus held in its lower position the end frame is held in its raised position with the floor-gripping means out of contact with the floor. When the pivoted stop is drawn outwardly by slightly raising the end frame and pressing with the fingers upon the finger-grip the standard will rise within the sleeve when the end frame is lowered so that the floor-gripping means come into contact with the floor and hold the bedstead stationary.

Figure 3 illustrates means to prevent rotation of the standard which carries the castor wheel. The vertical slot in the sleeve is provided with a downward extension 11 and the standard is provided with an offset pin 12 adapted to slide within the extension of the slot and thus prevent the castor-wheel and standard from rotating. This ensures noiselessness and also holds the castor-wheel in the correct position.

The device is exceedingly simple, efficient and very inexpensive in construction and is neat in appearance.

While the invention is especially applicable to hospital bedsteads it may also be applied to wheeled chairs for invalids or to other means for intermittent manual transport which in some circumstances must be kept stationary and in other alternate circumstances should be freely movable from place to place. Thus a pair of castor-wheels, adjustable in the manner described, might be applied to a movable packing bench for use in factories.

The term "freely running castor-wheel" is intended to include any castor-wheel or like anti-friction device by which movement

of a hospital bedstead, or other means for intermittent manual transport, from place to place is rendered easy and practical.

The term "floor-gripping device" comprises especially rubber foot-sockets but includes also any device which minimizes movement of the hospital bedstead or other means for intermittent manual transport.

The guide sleeve and slidable standard may be made of iron or other material suitable for use in the construction of bedsteads, and the locking device may be made of cast iron, brass, or other known suitable material.

Having now fully described and ascertained our said invention and the manner in which it is to be performed, we declare that what we claim is:—

1. Improved means for the purpose specified having a freely running castor-wheel carried by a standard slidable within a sleeve which is provided with a vertical slot through which a stop is adapted to be swung so as to engage or release the standard.

2. In means as claimed in Claim 1, a stop pivotally mounted within the sleeve on a cross bolt which is passed through apertures in the sleeve, the sleeve being provided with a single vertical slot through which the stop is adapted to be swung.

3. In means as claimed in Claims 1 or 2 a stop provided with a finger grip by which it may be swung outwardly.

4. A hospital bedstead and frame, or like means adapted for intermittent manual transport, having an upright sleeve adapted to accommodate a standard which carries a freely running castor wheel, the said sleeve being provided with a single vertical slot laterally near its top while a stop pivoted within the sleeve is adapted to swing in gravitationally through the slot and engage the top of the standard when the end frame is raised and is adapted also to be swung by a finger grip outwardly through the slot so as to disengage the standard and allow the castor-wheel to rise.

5. In means for the purpose specified as claimed in Claims 1, 2 or 4, an extension of the vertical slot which extension is adapted to accommodate a pin or like guide offset from the standard.

6. In means for the purpose specified as claimed in Claims 1 or 4, a slot or like guiding means at the top of the standard adapted to prevent rotation of the standard.

7. Improved means for the purpose specified substantially as described and illustrated.

Dated this twenty-sixth day of June, 1929:

L. B. DAVIES,

Patent Attorney for the Applicants.

Witness—E. V. Davies.

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